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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,415	08/20/2001	Charilaos Dalkidis	LNUP:107_US_	5726

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Hodgson Russ LLP
Intellectual Property Law Group
One M & T Plaza
Suite 2000
Buffalo, NY 14203-2391

EXAMINER

ALEXANDER, LYLE

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 04/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/933,415

Applicant(s)

DALKIDIS ET AL.

Examiner

Lyle A. Alexander

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,4,6-16,18-21 and 23-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,4,6-16,18-21 and 23-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 2,4,6-16,18-21 and 23-34 are rejected under 35 U.S.C. 103(a) as being unpatentable Heid et al. in view of Bard (USP 5,580,523) or Labriola (USP 5,428,470).

Heid et al. teach an automated apparatus(1) for treating cytological or histological specimens. Column 3 lines 8+ describe the apparatus(1) as computer controlled for automatically running stored and selected treatment programs. The programs provide instructed a transport device to move the samples to individual treatment stations, remove the sample after the appropriate residence time and transport to the next/new treatment station. Each treatment station is selected according to the specific computer program required. The computer control can be set up for the simultaneous, parallel course of different and/or like treatment programs. The apparatus has a housing(1a) with two openings(4,5) that act as loading or unloading stations. The computer processor(31), memory(32), display field(2) and keyboard(3) are all integrated with the apparatus(1). A basket with specimen holder baskets is inserted is inserted into the loading station and acts as a transport unit taking the sample to the appropriate treatment station (column 4 lines 1+). The treatments stations(6a-j) are arranged in a two dimensional array. Two horizontal guides(8a-b) facilitate sample transport to the treatment stations(6a-j). The transport device(33-36) has four drives and via interface cards(33-36) the exact position of transport device is known at all times.

The claimed "multiple processing stations" have been read on the taught treatment stations(6a-i) and the claimed "transport device" on the taught transport devices(33-36). The claimed "modular treatment stations" and "combined reception and connection regions each for receiving a corresponding treatment station" have been read on each station(6a-j) . Heid et al. teach each treatment station is selected according to the specific computer program and has been read on the claimed "permanently definable function".

Heid et al. teach specific placement of the treatment stations and interface cards(33-36) that define these locations of the treatment stations and permit controlled access to each station. This has been read on the claimed "region, coordinated with said processing stations".

Column 5 lines 9-12 teach the air can be evacuated from housing(1a) which has been read on the claimed "modular treatment station comprises a fan", "... an extraction system for extracting vapors" and "... a central extraction system ...".

The claimed "control system" has been read on the taught computer processor(31), memory(32), display field(2) and keyboard(3).

The claimed "robotic arm" that has "two parallel arm" that are "rotatable about a vertical shaft" and is "adjustable in height" has been read on the taught two horizontal linear guides(8a-b), movable cross bar(9), vertical guide(10) and movable slider(11).

Heid et al. is silent to the claimed modular design that permits adding and removing selected components of the apparatus.

Bard (USP 5,580,523) teaches a modular automated sample treatment device. In column 2 lines 42+ Bard teaches " The modular nature of the system, component parts, e.g. the reactors, flow channels, sensors, detectors, temperature control units, allow easy replacement and/or interchangeability of the component parts and provides a versatility not offered by existing systems".

Labriola teaches in columns 1-2 that complex automated analyzers are well known in the art. Labriola further teaches it is desirable to design the automated analyzer to have a modular construction to gain the advantages that one module can be easily replaced rather than having to disassemble and repair the analyzer. The modular design will minimize the down time of the analyzer and will not require as high level of skill to make the repair.

It would have been within the skill of the art to modify Heid et al. in view of Bard or Labriola and make the system modular such that the desired components/functions may be easily changed to gain the above advantages.

Heid et al. are silent to the claimed plug-like connector stem and electrical contacts on the treatment stations, covers for closing the unused access openings and a turbulence-inducing device.

The court decided In re Boesch (205 USPQ 215) that optimization of a result variable is ordinarily within the skill of the art. A result effective variable is one that has predictable and well-known effects.

Plug like connectors are well known in the art for mating elements securely in a desired orientation and as electric contacts. It would be desirable in a device to use

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plug like connectors to secure the various elements and use the plug design to only permit the desired elements to be placed in the proper orientations (e.g. the plug on the wrong part will not fit). It would have been within the skill of the art to modify Heid et al. and use a plug like connector to gain the expected and well-known results of secure unambiguous placement of the various elements and as electric contacts.

Heid et al. teaches covers (7a-j) to prevent evaporation of solvent from the containers. Covers are well known in the art to prevent evaporation of solvent and to minimize external contamination. It would have been within the skill of the art to further modify Heid et al. and use covers on the unused positions to gain the above advantages.

It is known in the art that turbulence or stirring of a solution is desirable to maintain active chemical species at the reaction interface to facilitate the maximum reaction. It would have been desirable to further modify Heid et al. and provide turbulence or stir the solution to gain the above advantages.

Claims 2,4,6-16,18-21 and 23-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thiem et al. (USP 6,635,225) in view of Bard (USP 5,580,523)_or Labriola (USP 5,428,470).

Thiem et al. teach an automated apparatus for the cytological/histological staining of tissue samples comprising a transport basket(4) containing multiple slides(2), reagent containers(3), transport mechanism(6), transporting arms(24), sensors(12) and control/logic circuits(24/25). This has been read on the claimed multiple modular

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processing stations and transport device to move the sample in and out of the processing stations.

Theim et al. are silent to the claimed modular design that permits adding and removing selected components of the apparatus.

Bard (USP 5,580,523) teaches a modular automated sample treatment device. In column 2 lines 42+ Bard teaches " The modular nature of the system, component parts, e.g. the reactors, flow channels, sensors, detectors, temperature control units, allow easy replacement and/or interchangeability of the component parts and provides a versatility not offered by existing systems".

Labriola teaches in columns 1-2 that complex automated analyzers are well known in the art. Labriola further teaches it is desirable to design the automated analyzer to have a modular construction to gain the advantages that one module can be easily replaced rather than having to disassemble and repair the analyzer. The modular design will minimize the down time of the analyzer and will not require as high level of skill to make the repair.

It would have been within the skill of the art to modify Theim et al. in view of Bard or Labriola and make the system modular such that the desired components/functions may be easily changed to gain the above advantages.

Theim et al. are silent to the claimed plug-like connector stem and electrical contacts on the treatment stations, covers for closing the unused access openings and a turbulence-inducing device.

The court decided In re Boesch (205 USPQ 215) that optimization of a result variable is ordinarily within the skill of the art. A result effective variable is one that has predictable and well-known effects.

Plug like connectors are well known in the art for mating elements securely in a desired orientation and as electric contacts. It would be desirable in a device to use plug like connectors to secure the various elements and use the plug design to only permit the desired elements to be placed in the proper orientations (e.g. the plug on the wrong part will not fit). It would have been within the skill of the art to modify Thiem et al. (USP 6,635,225) and use a plug like connector to gain the expected and well-known results of secure unambiguous placement of the various elements and as electric contacts.

Covers are well known in the art to prevent evaporation of solvent and to minimize external contamination. It would have been within the skill of the art to further modify Thiem et al. (USP 6,635,225) and use covers on the unused positions to gain the above advantages.

It is known in the art that turbulence or stirring of a solution is desirable to maintain active chemical species at the reaction interface to facilitate the maximum reaction. It would have been desirable to further modify Thiem et al. (USP 6,635,225) and provide turbulence or stir the solution to gain the above advantages.

Claims 2,4,6-16,18-21 and 23-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thiem et al. (USP 6,080,365) in view of Bard (USP 5,580,523) or Labriola (USP 5,428,470).

Thiem et al. teach an automated apparatus(1) for the cytological/histological staining of tissue samples comprising a plurality of chemical containers(4), turntable(7), a central guide rod(8) with an electrical slip ring(25) power connector that facilitates suction means to evacuate the housing(3), and an object holders(6) to move the slides about within the apparatus(1). This has been read on the claimed multiple modular processing stations and transport device to move the sample in and out of the processing stations.

Thiem et al. are silent to the claimed modular design that permits adding and removing selected components of the apparatus.

Bard (USP 5,580,523) teaches a modular automated sample treatment device. In column 2 lines 42+ Bard teaches " The modular nature of the system, component parts, e.g. the reactors, flow channels, sensors, detectors, temperature control units, allow easy replacement and/or interchangeability of the component parts and provides a versatility not offered by existing systems".

Labriola teaches in columns 1-2 that complex automated analyzers are well known in the art. Labriola further teaches it is desirable to design the automated analyzer to have a modular construction to gain the advantages that one module can be easily replaced rather than having to disassemble and repair the analyzer. The modular

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design will minimize the down time of the analyzer and will not require as high level of skill to make the repair.

It would have been within the skill of the art to modify Theim et al. in view of Bard or Labriola and make the system modular such that the desired components/functions may be easily changed to gain the above advantages.

Theim et al. (USP 6,080,365) is silent to covers for closing the unused access openings and a turbulence-inducing device.

The court decided In re Boesch (205 USPQ 215) that optimization of a result variable is ordinarily within the skill of the art. A result effective variable is one that has predictable and well-known effects.

Use of a cover to minimize external contamination is a result effective variable. It would have been within the skill of the art to modify Theim et al. (USP 6,080,365) and use covers on the unused positions to gain the above advantages.

It is known in the art that turbulence or stirring of a solution is desirable to maintain active chemical species at the reaction interface to facilitate the maximum reaction. It would have been desirable to further modify Theim et al. (USP 6,080,365) and provide turbulence or stir the solution to gain the above advantages.

Response to Arguments

Applicant's arguments filed 3/4/05 have been fully considered but they are not persuasive.

Applicants' argue Heid et al., Thiem et al.('225) and Thiem et al.('365) fail to teach the presently claimed modular stations. The Office has cited Bard above in a new 35 USC 103 rejection that addresses this issue.

Applicants traverse the Double Patenting rejections and argued convincingly and these rejections have been vacated. Specifically, the 09/932, 900 application does not have claims directed to the presently claimed "modular treatment station". Further, the instant claims are not directed to the "drawer" structure and "upstream apparatus" as claimed by the 09/932,900 application.

The 09/793,199 application does not have claims directed to the presently claimed "modular treatment station". Further, the instant claims are not directed to the transponder and corresponding control unit as claimed by the 09/793,199 application.

The 10/011,674 application does not have claims directed to the presently claimed "modular treatment station". Further, the instant claims are not directed to a "...container including an upper rim having a pair of notches..." and the apparatus and method for volume reducing insert as claimed by the 10/011,674 application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lyle A Alexander whose telephone number is 571-272-1254. The examiner can normally be reached on Monday, Wednesday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LYLE A. ALEXANDER
PRIMARY EXAMINER